

**U. S. PLANT PATENT APPLICATION OF**

**SORU LIN**

**FOR: PENTAS PLANT NAMED**

**‘BISMARCK PINK’**

LIN, Soru

TITLE: PENTAS PLANT NAMED 'BISMARCK PINK'

APPLICANT: SORU LIN

BOTANICAL CLASSIFICATION/CULTIVAR DESIGNATION:

*Pentas lanceolata* cultivar Bismarck Pink

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### BACKGROUND OF THE INVENTION

The present Invention relates to a new and distinct cultivar of Pentas plant, botanically known as *Pentas lanceolata*, and hereinafter referred to by the name 'Bismarck Pink'.

10       The new Pentas is a product of a planned breeding program conducted by the Inventor in Pintung, Taiwan. The objective of the breeding program was to develop new moderately tall and freely branching Pentas cultivars with numerous large flowers and attractive flower and foliage coloration.

15       The new Pentas originated from a cross-pollination made by the Inventor during the summer of 1995 of two unidentified proprietary selections of *Pentas lanceolata*, not patented. The cultivar Bismarck

Pink was discovered and selected by the Inventor as a flowering plant within the progeny of the stated cross-pollination in a controlled environment in Pintung, Taiwan in 1996.

Asexual reproduction of the new cultivar by terminal cuttings  
5 taken in Pintung, Taiwan, since the summer of 1996, has shown that the unique features of this new Pentas are stable and reproduced true to type in successive generations of asexual reproduction.

#### SUMMARY OF THE INVENTION

The following traits have been repeatedly observed and are  
10 determined to be the unique characteristics of 'Bismarck Pink'. These characteristics in combination distinguish 'Bismarck Pink' as a new and distinct Pentas cultivar:

1. Upright and somewhat outwardly spreading plant habit.
2. Short internodes and freely branching habit; dense and  
15 bushy growth habit.
3. Small, dark green-colored leaves.
4. Freely flowering habit.

5. Large pink-colored flowers with white-colored throats arranged in large terminal corymbs that are positioned above the foliage.

Plants of the new Pentas differ primarily from plants of the  
5 parent selections in the following characteristics:

1. Plants of the new Pentas are taller than plants of the parent selections.
2. Plants of the new Pentas have larger inflorescences with larger flowers than plants of the parent selections.

10 The new Pentas can be compared to the *Pentas lanceolata* cultivar Butterfly, not patented. However, in side-by-side comparisons conducted in Pintung, Taiwan, plants of the new Pentas differed from plants of the cultivar Butterfly in the following characteristics:

- 15 1. Plants of the new Pentas had smaller, more rugose and darker green-colored leaves than plants of the cultivar Butterfly.

2. Plants of the new Pentas had larger flowers with thicker petals than plants of the cultivar Butterfly.
3. Flowers of plants of the new Pentas were longer lasting than flowers of plants of the cultivar Butterfly.
- 5 4. Plants of the new Pentas did not set seed whereas plants of the cultivar Butterfly set seed.

The new Pentas can also be compared to the *Pentas lanceolata* cultivar New Look Graffiti, not patented. However, in side-by-side comparisons conducted in Pintung, Taiwan, plants of the new Pentas  
10 differed from plants of the cultivar New Look Graffiti in the following characteristics:

1. Plants of the new Pentas were taller and more vigorous than plants of the cultivar New Look Graffiti.
2. Plants of the new Pentas had smaller and darker-green  
15 colored leaves than plants of the cultivar New Look Graffiti.

3. Plants of the new Pentas had larger inflorescences and larger flowers than plants of the cultivar New Look Graffiti.
4. Flowers of plants of the new Pentas were longer lasting than flowers of than plants of the cultivar New Look Graffiti.

#### BRIEF DESCRIPTION OF THE PHOTOGRAPHS

The accompanying colored photographs illustrate the overall appearance of the new cultivar, showing the colors as true as it is reasonably possible to obtain in colored reproductions of this type. Colors in the photographs may differ slightly from the color values cited in the detailed botanical description which accurately describe the colors of the new Pentas. The photograph at the bottom of the sheet comprises a side perspective view of a flowering plant of 'Bismarck Pink' grown in a container. The photograph at the top of the sheet is close-up view of typical flowers and leaves of 'Bismarck Pink'.

## DETAILED BOTANICAL DESCRIPTION

Plants of the cultivar Bismarck Pink have not been observed under all possible environmental conditions. The phenotype may vary somewhat with variations in environment such as temperature and  
5 light intensity, without, however, any variance in genotype. The  
aforementioned photographs and following observations and  
measurements describe plants grown in Lompoc, California, under  
commercial practice in a polycarbonate-covered greenhouse during  
the winter. During the production of the plants, day temperatures  
10 ranged from 21 to 30°C, night temperatures ranged from 16 to 18°C  
and light levels ranged from 5,000 to 9,000 foot-candles. Rooted  
young plants were pinched once and then planted in 15.25-cm  
containers. Plants had been growing for about 31 weeks when the  
photographs and the description were taken. In the following  
15 description, color references are made to the Royal Horticultural  
Society Colour Chart, 1995 Edition, except where general terms of  
ordinary dictionary significance are used.

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**BOTANICAL CLASSIFICATION:**

*Pentas lanceolata* cultivar Bismarck Pink.

**PARENTAGE:**

5           Female, or seed, parent: Unidentified proprietary selection of  
*Pentas lanceolata*, not patented.

Male, or pollen, parent: Unidentified proprietary selection of  
*Pentas lanceolata*, not patented.

**PROPAGATION:**

10           Type cutting: Terminal cuttings.

Time to initiate roots, summer: About 9 to 10 days at 30 to 32°C.

Time to initiate roots, winter: About 10 to 12 days at 20 to 25°C.

Time to produce a rooted young plant, summer: About 20 to 25 days at 28 to 32°C.

15           Time to produce a rooted young plant, winter: About 28 to 30 days at 20 to 25°C.

Root description: Fine, fibrous; white in color.



Rooting habit: Dense; moderately branching.

PLANT DESCRIPTION:

General appearance: Upright and somewhat outwardly spreading plant habit; narrow inverted triangle.

- 5 Growth and branching habit: Vigorous and freely-branching growth habit with about eight lateral branches per plant; short internodes, dense and bushy growth habit. Pinching, that is removal of the terminal apex, enhances branching potential.

Plant height: About 26 cm.

- 10 Plant diameter or spread: About 28 cm.

Lateral branches:

Length: About 20 cm.

Diameter: About 6 mm.

Internode length: About 3.8 cm.

- 15 Texture: Pubescent.

Strength: Strong.

Color: 144A.

Foliage description:

Arrangement: Opposite, simple.

Length: About 8.5 cm.

Width: About 5.2 cm.

5 Shape: Elliptical.

Apex: Acute.

Base: Acute to attenuate.

Margin: Entire.

10 Texture, upper and lower surfaces: Pubescent; coarse;  
rugose.

Venation pattern: Pinnate; arcuate.

Color:

Developing and fully expanded foliage, upper  
surface: 147A.

15 Developing and fully expanded foliage, lower  
surface: 147B.

Venation, upper surface: 144A.

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Venation, lower surface: 147C.

Petiole:

Length: About 3 cm.

Diameter: About 3 mm.

5                      Texture, upper and lower surfaces: Pubescent;  
tough.

Color: 144B.

#### FLOWER DESCRIPTION:

10                      Flower type and habit: Numerous, large, salverform, star-shaped,  
single flowers that are arranged on large terminal hemispherical  
corymbs; about 62 flowers and about 30 flower buds per corymb.  
Flowers face upright and outward. Inflorescences positioned  
above the foliage on erect peduncles. Flowers last about 7 to 10  
days under greenhouse conditions. Flowers not persistent.  
15                      Flowers not fragrant.

Natural flowering season: In the garden, flowering is continuous through the spring and summer. In the greenhouse, flowering is continuous year-round.

Inflorescence height: About 4.2 cm.

5      Inflorescence diameter: About 8.5 cm.

Flower height: About 2 cm.

Flower diameter: About 2.8 cm.

Flower tube length: About 2.5 cm.

Flower throat diameter: About 4 mm.

10      Flower tube diameter: About 2 mm.

Flower buds:

Length: About 1.8 cm.

Diameter: Towards the apex, about 3 mm; towards the base, about 1.5 mm.

15      Shape: Elongated ovoid.

Color: 182C.

Petals:

- Quantity per flower/arrangement: Five in a single whorl;  
fused at base.
- Lobe length: About 1 cm.
- 5 Lobe diameter: About 6 mm.
- Lobe shape: Elliptic.
- Lobe apex: Acute.
- Lobe base: Fused.
- Lobe margin: Entire.
- 10 Texture, upper and lower surfaces: Smooth, glabrous;  
velvety.
- Color:
- When opening, upper surface: 68A.
- When opening, lower surface: 73B.
- 15 Fully opened, upper surface: 68B to 68C.
- Fully opened, lower surface: 73B to 73C.
- Throat: 155D.

Tube: 73A to 73B.

Sepals:

Quantity per flower/arrangement: Five in a single whorl;  
fused at base.

5 Length: About 4 to 8 mm.

Width: About 1 to 2 mm.

Shape: Elliptic.

Apex: Acute.

Base: Fused.

10 Margin: Entire.

Texture, upper and lower surfaces: Smooth, glabrous.

Color, upper surface: 147A.

Color, lower surface: 147B.

Peduncles:

15 Length: About 1.8 cm.

Diameter: About 3 mm.

Angle: Upright to about 45° from vertical.

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Strength: Strong.

Texture: Smooth.

Color: 144A.

Pedicels:

5 Length: About 3 mm.

Diameter: About 1.5 mm.

Angle: Upright to about 45° from vertical.

Strength: Strong.

Texture: Smooth.

10 Color: 147C.

Reproductive organs:

Stamens:

Quantity per flower: Five.

Anther size: About 1 mm by 3 mm.

15 Anther shape: Oblong.

Anther color: 70D.

Pollen amount: Scarce.

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Pollen color: 155C.

Pistils:

Quantity per flower: One.

Pistil length: About 2.7 cm.

5 Stigma shape: Two-parted.

Stigma color: 155D.

Style length: About 2 cm.

Style color: 155A.

Ovary color: 145C.

10 Seed/fruit: Seed and fruit production have not been observed.

DISEASE/PEST RESISTANCE:

Plants of the new Pentas have been observed to be resistant to

Pythium, Rhizoctonia and Botrytis. Plants of the new Pentas

have not been observed to be resistant to other pathogens and

15 pests common to Pentas.



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#### TEMPERATURE TOLERANCE:

Plants of the new Pentas have been observed to tolerate temperatures from 10 to 35°C.